

### Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### **LISTING OF CLAIMS:**

1-14. (Cancelled)

15. (Currently amended) A non-transitory computer-readable recording medium storing thereon an index table and a plurality of operation mode objects, wherein

the index table is a file that shows a plurality of titles in correspondence with the plurality of operation mode objects, at least one of the operation modes being a first operation mode object that is for use in a movie mode, and at least another one of the operation mode objects being a second operation mode object that is for use in a virtual machine,

the first operation mode object is stored in a file,~~that~~ includes a navigation command that shows a control procedure, and is loaded by a playback apparatus when the playback apparatus is in a first operation mode,

the second operation mode object is stored in a file,~~that~~ includes cache management information, and is loaded by the playback apparatus when the playback apparatus is in a second operation mode, and defines run control of an application in accordance with a selection of a current title corresponding to the second operation mode object, the run control being a control of reading a class file included in a Java archive file composing an application having a life cycle corresponding to the current title onto a heap memory of the virtual machine from a cache when the Java archive file composing the application has been preloaded to the cache, and

the cache management information shows, of Java archive files that compose applications,

which Java archive file is to be read to ~~[[a]]~~the cache, before audio-visual playback of the current title following the selection of the current title corresponding to the second operation mode object when said title becomes a current title, the file to be read into the cache as shown by the cache management information is a Java archive file which includes a class file with regard to an Xlet program.

16. (Currently amended) A playback apparatus that performs playback of a title recorded on a recording medium, and execution of an application, the playback apparatus comprising:

a module manager operable to select, based on an index table, a title to become a current title from among a plurality of titles; ~~[[and]]~~

a module operable to execute the application~~[[,]]~~; and

a playback unit operable to execute audio-visual playback in accordance with the current title,

wherein

the recording medium stores thereon an index table, and a plurality of operation mode objects,

the index table shows a plurality of titles in correspondence with the plurality of operation mode objects, at least one of the operation modes being a first operation mode object that is for use in a movie mode, and at least another one of the operation mode objects being a second operation mode object that is for use in a virtual machine,

the first operation mode object is stored in a file and includes a navigation command that shows a control procedure,

the second operation mode object is stored in a file, includes cache management

information, is loaded by the playback apparatus when the playback apparatus is in a second operation mode, and defines run control of an application in accordance with a selection of a current title corresponding to the second operation mode object, the run control being a control of reading a class file included in a Java archive file composing an application having a life cycle corresponding to the current title onto a heap memory of the virtual machine from a cache when the Java archive file composing the application has been preloaded to the cache,

the cache management information shows, of Java archive files that compose applications, which Java archive file is to be read to ~~[[a]]the~~ cache, before audio-visual playback of the current title following the selection of the current title~~corresponding to the second operation mode object~~ when said title becomes a current title, the file to be read into the cache as shown by the cache management information is a Java archive file which includes a class file with regard to an Xlet program,

the module, when a selection of the current title is made, reads to the cache the Java archive file shown in the cache management information ~~in the operation mode object~~ corresponding to the current title, before audio-visual playback of said the current title commences, and

the module and the module manager are each configured from hardware including a processor and a memory, and a program stored in the memory.

17. (Cancelled)

18. (Currently amended) A playback method that performs playback of a title recorded on a recording medium, and execution of an application, the playback method comprising:

a manager step of selecting, based on an index table, a title to become a current title from among a plurality of titles; and

a module step of executing the application[[.]]; and

a playback step of executing audio-visual playback in accordance with the current title,

wherein

the recording medium stores thereon an index table and a plurality of operation mode objects,

the index table shows a plurality of titles in correspondence with the plurality of operation mode objects, at least one of the operation modes being a first operation mode object that is for use in a movie mode, and at least another one of the operation mode objects being a second operation mode object that is for use in a virtual machine,

the first operation mode object is stored in a file and includes a navigation command that shows a control procedure,

the second operation mode object is stored in a file, includes cache management information, is loaded by the playback apparatus when the playback apparatus is in a second operation mode, and defines run control of an application in accordance with a selection of a current title corresponding to the second operation mode object, the run control being a control of reading a class file included in a Java archive file composing an application having a life cycle corresponding to the current title onto a heap memory of the virtual machine from a cache when the Java archive file composing the application has been preloaded to the cache,

the cache management information shows, of Java archive files that compose applications, which Java archive file is to be read to ~~[[a]]~~the cache, before audio-visual playback of the current title following the selection of the current title corresponding to the second operation mode

object when said title becomes a current title, the file to be read into the cache as shown by the cache management information is a Java archive file which includes a class file with regard to an Xlet program,

the module step, when a selection of the current title is made, reads to the cache the Java archive file shown in the cache management information in the operation mode object corresponding to the current title, before audio-visual playback of said the current title commences.